



APT-5

USER'S MANUAL

Table of contents:

	Page
1. Introduction	5
2. System components	6
3. Preparing the APT-5 Hi-Lo	9
4. Installation for use – Arms exercise	10
5. Installation for use - Legs exercise	12
6. Operation instructions	14
7. General Maintenance & Storage	19
8. Trouble shooting	20
9. Accessories	21
10. Technical Data	22

NOTE: Design details may change without notice

1. INTRODUCTION

The **APT-5** is an electric exercise machine used for the improvement of physical abilities. The **APT-5** provides the user with a variety of exercise options and modes of operation that meet a broad range of physical needs.

A wide range of accessories are available that offer many exercise options and make the **APT-5** suitable for the maintenance of fitness and physical well being.

The **APT-5** can be operated in either the ACTIVE mode at varying degrees of resistance or in the PASSIVE mode at adjustable speed and torque levels. In the PASSIVE mode it is also possible to combine PASSIVE with ACTIVE training by using physical effort in conjunction with the electrical operation of the motor. The **APT-5** functions forwards or backwards and is suitable for arm or leg exercises (upper or lower limbs). In case the user has limited strength in the arm, it is recommended to have an attendant present during exercise.

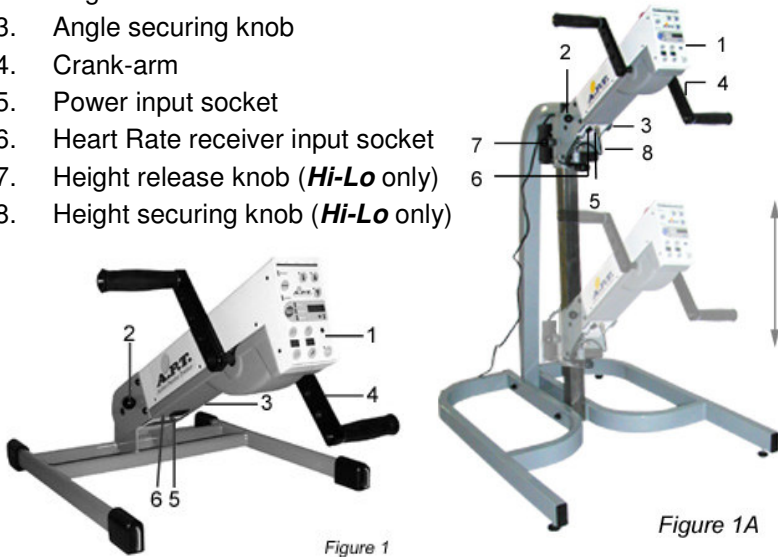
The **APT-5**'s light weight makes it portable, easy to store and convenient to use in the comfort of one's home. The unit is also suitable for use in healthcare institutions.

Use of the **APT-5** is recommended for the maintenance of muscle strength, flexibility, muscle tone, endurance and general fitness for users of all ages.

2. SYSTEM COMPONENTS AND DETAILS

2.1. **APT-5** unit (Figure 1)

1. Operator panel
2. Angle release knob
3. Angle securing knob
4. Crank-arm
5. Power input socket
6. Heart Rate receiver input socket
7. Height release knob (**Hi-Lo** only)
8. Height securing knob (**Hi-Lo** only)



2.2. Primary components (Figure 2):

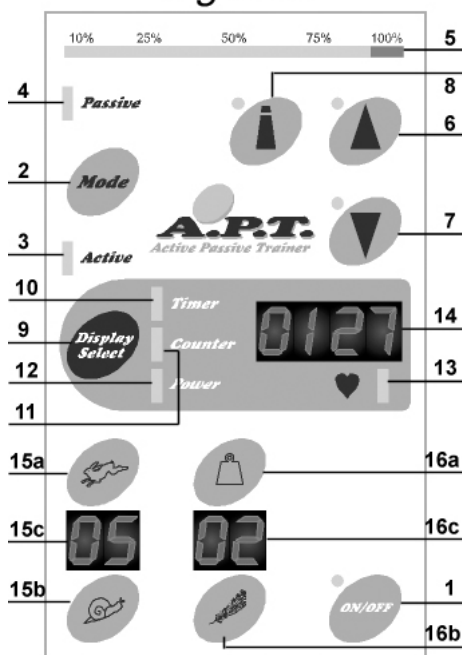
1. Power supply unit
2. Straight hand-grips
3. Footrests
4. Finger protection disks
5. Securing straps











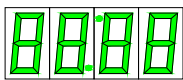


Figure 2 - components

2.3. The **APT-5** - Operator Panel

Figure 3



1		On/Off button: green indicator is lit when the APT-5 is switched on.
2		Mode button: for selecting active or passive mode of operation.
3		Green indicator is lit when ACTIVE mode is selected by mode button.
4		Green indicator is lit when PASSIVE mode is selected by mode button.
5		Indicates actual load level as percentage of chosen load level (see 16).

6		Button for forward operation in the PASSIVE mode. The green indicator is lit to indicate forward operation.
7		Button for backward operation in the PASSIVE mode. The green indicator is lit to indicate backward operation.
8		Button activating Auto-Reverse function in the PASSIVE mode. In the ACTIVE mode this button activates the constant force function. The green indicator is lit when activated.
9		Button for selecting display of data, (see 10-13):
10		Green indicator is lit when Timer display is selected. The display will show the time the APT-5 has been used in the current exercise period.
11		Green indicator is lit when Counter display is selected. The display will show the total amount of revolutions of the crank arm in the current exercise period.
12		Green indicator is lit when Power display is selected. The display will show the power during exercise in Watts – only in Active mode.
13		Green indicator is lit when heart rate display is selected. The display will show the current heart rate per minute – only when the Heart Rate receiver is plugged in.
14		Display for Timer, Counter, Energy and Heart Rate.
15		Exercise speed level selection push buttons 15a – Increases speed level (up to 10) 15b – Decreases speed level (down to 1)
16		Exercise load level selection push buttons 16a – Increases load level (up to 10) 16b – Decreases load level (down to 1)

3. PREPARING THE APT-5 HI-LO



3.1. Moving your **APT-5 Hi-Lo**

The **APT-5 Hi-Lo** can easily be moved by lifting the end of the frame and pushing the unit using its wheels, see Figure 4.

3.2. Positioning the **APT-5 Hi-Lo**

Position the **APT-5 Hi-Lo** close to an electrical socket outlet. The adjustable feet on the underside keep the **APT-5 Hi-Lo** level and prevent it from sliding.

NOTE: Ensure that the **APT-5 Hi-Lo** is level in order to prevent damage to the trainer or its components.

If readjustment of one of the feet is needed, open the contra nut (4A/1), turn the foot (4A/2) to the desired height and secure the foot with the contra nut (4A/1).

4. INSTALLATION FOR USE – ARMS EXERCISE

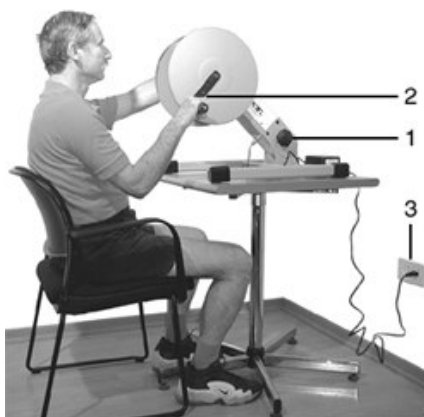


Figure 5

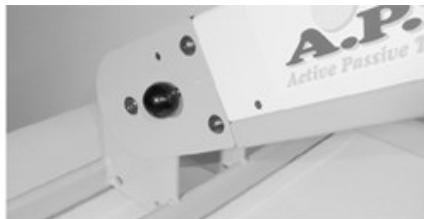


Figure 6 - angle release knob

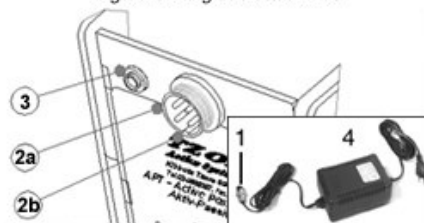


Figure 7 - power supply connector and APT socket

Step 1: Position the **APT-5** on a level table top close to an electrical socket outlet (Figure 5).

For the **APT-5 Hi-Lo**: loosen the height securing knob (Figure 1A-8), pull the grey ring of the height release knob (Figure 1A-7) and adjust the unit to the required height. Release the grey ring and tighten the height securing knob (Figure 1A-7).

Step 2: Loosen the angle-securing knob (Figure 5-1) and adjust the **APT-5** to the required angle. To increase the angle, lift the body of the **APT-5**, allow it to “click” into one of the operating positions and retighten the securing knob. To decrease the angle, pull the angle release knob (Figure 6), lower the body of the **APT-5**, allow it to “click” into another operating position and tighten the securing knob.

CAUTION: Make sure that the minimum distance between crank arm and the table surface is approximately 5 cm. / 2” (Figure 5-2).

Step 3: Connect the output connector (Figure 7-1) of the power supply (Figure 7-4) to the **APT-5** power input socket (Figure 7-2a) while ensuring correct position of connector groove opposite the guide key of socket (Figure 7-2b).

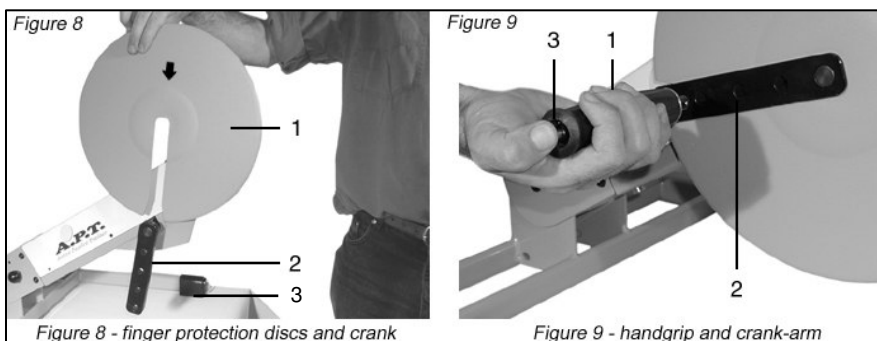
NOTE: The **APT-5** must be used only with an original **APT-5** Power Supply unit.


Step 4: Install the finger protection discs (Fig. 8-1) by sliding them into the grooves on the outside edges of the crank arms (Figure 8-2) in the direction shown.


NOTE: The finger protection discs are important for safe operation of the unit during hands exercise.

Step 5: Insert handgrip (Figure 9-1) in one of the four mounting holes (Figure 9-2) in each of the **APT-5** crank arms. Installation or removal requires only a straight push or pull while simultaneously pressing on the release pin (Figure 9-3) at the end of the handle.

NOTE: The choice of mounting hole provides variable resistance levels and ranges of motion. See operation instructions.



Step 6: Plug the power supply mains power plug into the electrical socket outlet (Figure 5-3). **To start operating**, press the  button.

The **APT-5** will enter the stand-by position. Then press the  button. The green ACTIVE mode indicator will light up. You may start exercising in the ACTIVE mode. For operation instructions, see 5.1 & 5.2.

NOTE: If the **APT-5** moves across the table during arm exercises, anti-slip pads (Figure 8-3) may require cleaning.

5. INSTALLATION FOR USE – LEG EXERCISE



Figure 10

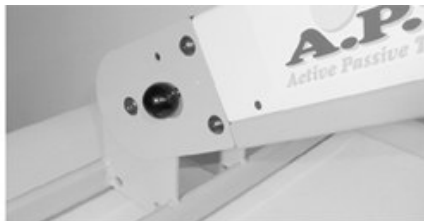


Figure 11 - angle release knob

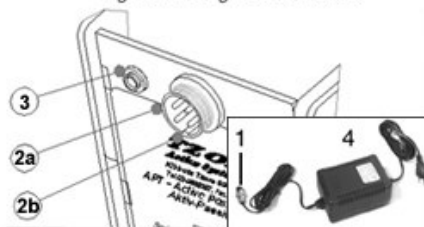


Figure 12 - power supply connector and APT socket

Step 1: Position the **APT-5** on the floor close to an electrical socket outlet (Figure 10).

Step 2: Loosen the angle-securing knob (Figure 10-1) and adjust the **APT-5** to the required angle. To increase the angle, lift the body of the **APT-5**, allow it to “click” into one of the operating positions and retighten the securing knob. To decrease the angle, pull the angle release knob (Figure 11), lower the body of the **APT-5**, allow it to “click” into another operating position and tighten the securing knob.

CAUTION: Make sure that the minimum distance between crank arm and the floor surface is approximately 5 cm. / 2” (Figure 10-2)

Step 3: Place a chair at the desired distance from the **APT-5**. If necessary, attach the Securing straps (Figure 10-6) between the **APT-5** base rings (Figure 10-5) and the chair legs to prevent any change in distance between the **APT-5** and the chair during leg exercises.

Step 4: Connect the power output connector (Figure 12-1) of the power supply (Figure 12-4) to the **APT-5** power input socket (Figure 12-2a) while ensuring correct position of connector groove opposite the guide key of socket (Figure 12-2b).

NOTE: The **APT-5** must be used only with an original **APT-5** Power Supply unit.

Step 5: Insert Footrest (Figure 13-1) in one of the four mounting holes (Figure 13-2) in each of the **APT-5** crank arms. Installation or removal requires only a straight push or pull while simultaneously pressing on the release pin (Figure 13-3) as shown. Secure feet in place with straps fastened diagonally as shown in Figure 10.

NOTE: The choice of mounting hole provides variable resistance levels and ranges of motion. See operation instructions.

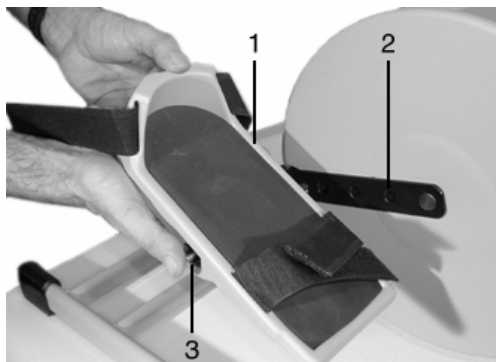



Figure 13 - footrest, crank-arm, mounting holes

Step 6: Plug the power supply mains power plug into the electrical socket outlet (Figure 10-3). The **APT-5** will enter a stand-by position. To

start operating, press the  button. The **APT-5** will enter the

stand-by position. Then press the  button. The green ACTIVE mode indicator will light up. You may start exercising in the ACTIVE mode. For operation instructions, see 5.1 & 5.2.

NOTE: If the **APT-5** moves across the floor during leg exercises, anti-slip pads (Figure 8-3) may require cleaning. If possible – use the **APT-5** on a carpet or rubber mat.

6. OPERATION INSTRUCTIONS

NOTE: Install **APT-5** for arms or legs exercise as described in the previous chapters.

6.1. Active mode - ISOKINETIC operation


Step 1: Insert the handgrips or footrests in one of the four mounting holes according to the radius and range of motion required.

NOTE: As the effective crank arm length is reduced in the ACTIVE mode, the amount of effort required increases while the range of motion decreases, and vice versa.



Step 2: To activate the active mode from the stand-by position (after

the electrical power is supplied to the **APT-5** and the

 ON/OFF

button is pressed): press the  **Mode** button. The green ACTIVE mode indicator will light up.


Step 3: Set the desired load level by pressing one of the selection

push buttons,  to increase the level or  to decrease the level.



Step 4: Rotate the **APT-5** handgrips or footrests forward or backward. Actual exercising force is displayed as a percentage (%) on the Bar Indicator.

NOTE: In this mode, an increase in the rotation speed (RPM) will lead to an increase in the exercising force.

6.2. Active mode - CONSTANT FORCE Operation

Step 1: Press the  button to activate the CONSTANT FORCE FUNCTION in the ACTIVE mode. The green indicator will light up.

Step 2: Set the desired load level by pressing one of the selection

push buttons,  to increase the level or  to decrease the level.

Step 3: Rotate the **APT-5** handgrips or footrests forward or backwards. The exercising force as displayed on the Bar Indicator will now remain constant at 50% for the selected load level, irrespective of the crank arm rotation speed.

6.3. PASSIVE mode

Step 1: Insert the handgrips or footrests in one of the four mounting holes according to the radius and range of motion required.

NOTE: As the effective crank arm length is reduced in the PASSIVE mode, the range of movement is reduced and the degree of resistance that the motor can overcome is increased.

Step 2: To activate the passive mode from the stand-by position (after the electrical power is supplied to the **APT-5** and the



button is pressed): press the



button two times, until the green PASSIVE mode indicator will light up. From the ACTIVE mode – press once only.

Step 3: Set the desired rotation speed by pressing one of the speed level push buttons and the desired force by pressing one of

the force load push buttons:



and



to increase

level,



and

to decrease level.

Step 4: Hold onto the handgrips (for arm exercise) or secure both feet to the footrests (for legs exercise). Make sure that **APT-5** is placed at a comfortable distance for exercise by turning the crank arms one complete revolution.

Press the



button for forward rotation.

Press the



button for backward rotation.

NOTE: There will be a short delay before the **APT-5** begins to turn in the chosen direction.

Step 5: The operation force of the crank arms should rotate the arms or legs of with no effort on the part of the user. This rotation force varies according to exercise level and crank arm mounting hole location selected.

Step 6: To stop the rotation of the crank-arms and exit the PASSIVE

mode, press the





button. The indicators will turn off and the **APT-5** will return to the stand-by position.

6.4. COMBINED active/passive mode


Step 1: Operate the **APT-5** in the passive mode and work against the force of the motor by applying resistance to the rotation of the crank arms.

Step 2: The resistance force to the rotation is displayed on the on the Bar Indicator as a percentage (%) at each level.

Step 3: If the resistance force stops the crank arm rotation completely, the Bar Indicator reaches 100% and the red indicator will light up. After holding this position for approximately 2 seconds, the crank arm rotation will stop automatically.


NOTE: To restart, Press the  button for forward rotation, or the  button for backward rotation.

6.5. Passive mode – AUTO-REVERSE function


Step 1: Push the  button to activate the AUTO-REVERSE function in the PASSIVE mode. The green indicator will light up.


Step 2: Operate the **APT-5** as in usual passive or combined active/passive mode.


Step 3: When the resistance force stops the crank arm rotation completely, the Bar Indicator reaches 100% and the red indicator will light up. After holding this position for approximately 2 seconds, the crank arm rotation will stop automatically. After a short delay the **DIRECTION OF ROTATION WILL BE REVERSED**. This feature also serves as an **ANTI-SPASM** function, stopping the motor in case of muscle spasm and reversing the direction of rotation after a short delay.




Step 4: As long as the  button indicator is lit, this function will continue to operate in the PASSIVE mode.

6.6. Display

By pressing the  button, four different types of data can be displayed.

- Normally the display will show the time measuring the duration of exercising; the green  indicator will be lit.

Each time the  button is pressed, the display will shift to show the next data type – as follows:

- Counter: displays the total of crank arm revolutions performed during an exercise period; the green  indicator will be lit.
- Power: display the power used during an exercise period; the green  indicator will be lit. This display can only be activated in ACTIVE mode.
- Heart Rate: displays the current heart rate if the receiver is connected to the **APT-5**; the green  indicator will be lit.

6.7. Heart Rate Transmitter and Receiver (optional)

Step 1: Plug Heart Rate Receiver in the socket of the **APT-5** (Figure 7-3) and attach the Receiver itself on the left side of the base with the arrow (the white label) pointed towards the user.



Step 2: Attach the elastic strap to the transmitter. Observe that each end of the transmitter has an open slot and two "teeth" extended slightly from the end. With the elastic strap's round buckle head, enter the transmitter's open slot from behind, rotate the roundhead and firmly "lift & lock" the buckle to the transmitter. You will feel a "snap" as the buckle locks over the two teeth extended from the transmitter.

Step 3: Freely moisten the two grooved electrode areas located on the back side of the transmitter. Wrap the belt around your chest and secure the remaining buckle head.




IMPORTANT: The logo should be *centered* on the chest, right-side-up so someone standing in front of you can correctly read the logo. Position the transmitter just below your breasts/pectoral muscles – directly against the skin.

REMARK: Some individuals, i.e. cardiac rehab patients, may need to position the transmitter more to the left side of the torso – slightly higher or lower – until the heart rate is detected.

Step 4: Adjust the elastic strap so it fits snugly, but comfortable.

Step 5: Press the  button until the display of the heart rate is selected. The  indicator will start flashing when the heart rate is detected.

6.8. Shut down

Step 1: To turn off the **APT-5**, from the PASSIVE mode – press the  button once. From the Active mode – press twice. All indicators except for the one next to the  button will turn off and the **APT-5** will return to its stand-by position. To turn off the **APT-5** completely – press the  once.

Step 2: Disconnect the power from the **APT-5** by first disconnecting the mains electrical plug from the electrical socket outlet. Disconnect Power supply output connector from the **APT-5** power input socket.

CAUTION: For safe disconnection *always* take the mains plug out of the electrical socket before disconnecting the Power supply from the **APT-5**.

7. GENERAL MAINTENANCE & STORAGE

The rugged design of the **APT-5** and the use of selected, modern materials ensure minimal requirements for care and maintenance. The **APT-5** can be lifted safely in its folded position by grasping on to the center of either of the legs of the base and carrying like a suitcase.

NOTE: Improper handling or neglect in the care of the **APT-5** may reduce or cancel the coverage of the manufacturer's warranty.

7.1. Regular care

- Inspect Power supply cables and plug for visible damages.
- Check power-input connector for visible damage or insecure fastening.
- On a regular basis check that all screws and components are fastened tightly.
- Ensure that the anti-slip pads under the base are always kept clean.

CAUTION: If any damage is detected – do not use the **APT-5**. Please contact your authorized dealer. Only authorized personnel may carry out repairs.

7.2. Cleaning instructions

- Disconnect Power Supply and wipe dry with clean cloth.

CAUTION: For safe disconnection of the **APT-5** *always* take the mains plug out of the wall socket *before* removing the connector from the **APT-5** power socket.






- Take care not to allow water to enter the unit. Keep cables and electric components away from water and humidity.

7.3. Storage

- Store the **APT-5** between –20 and +40 degrees C and between 10% and 80% humidity.
- For storage in a confined space, fold the **APT-5** unit by pulling the angle release knob (Figure 1-2) and lowering it to the flat position. Tighten the angle-securing knob (Figure 1-3) to prevent unintentional unfolding.

8. TROUBLE-SHOOTING

Hereunder are some types of disorders, which can usually be repaired rather simply. If these following measures are unsuccessful, an authorized dealer should be contacted!






PROBLEM	CHECK POINT
The APT-5 does not function at all	Power Supply not connected properly to mains outlet or to the APT-5 .
	APT-5 switched off. Press the  button to turn APT-5 on.
	APT-5 in stand-by mode. Press the  button to enter active or passive modes.
	Stop switch in lower - disconnection position. Turn switch anti-clockwise to release.
The crank-arms do not start to rotate in the passive mode	No direction selection button is selected. Press the  button (Figure 3-6) for forward rotation. Press the  button (Figure 3-7) for backward rotation
Model with remote control: remote unit not functioning smoothly	Remote unit's transmitter LED needs to be wiped clean.
	Remote unit batteries need replacement.
Model with Heart Rate Transmitter and Receiver: heart rate is not displayed	Correct display not selected: press the  button until the LED next to the heart lights up.
	HR Receiver not plugged in or pointed in the right direction: check connection and ensure that the Receiver is pointed towards the user (the pointed white label).
	Heart Rate Transmitter not applied properly on the body of the user.

9. ACCESSORIES



The following items are designed for use in combination with the **APT-5**.

CAUTION: The use of accessories other than these can be unsafe.

9.1. Hand grips and Footrests

#	ACCESSORY	USAGE DESCRIPTION	FIGURE
a)	Straight Handgrips	Used for most of the upper limb exercising.	
b)	Angled Handgrips	Ergonomically designed, mainly for strength exercising in the Active mode.	
c)	Hemi-glove	Used for securely supporting the wrist and hand on the handgrips for users who have little or no muscle strength.	
d)	Standard Footrests	Used for most of the lower limb exercising.	
e)	High support for footrests	May be attached to footrests for supporting the lower limbs of users that have little or no muscle strength.	

9.2. Optional added functions

#	ACCESSORY	USAGE DESCRIPTION	FIGURE
a)	Remote Control	Used mainly for lower limb exercising by users who have difficulty in reaching the operating panel.	
b)	Heart Rate transmitter and receiver	Used for monitoring the heart rate during exercise	

10. TECHNICAL DATA

Weight - Trainer	10 Kg. (22 lbs.)
- Power supply	1.4 Kg. (3lbs.)
Length	72 cm. (28 in.) overall
Width	46 cm. (18 in.)
Height	16 cm. (6½ in.) folded
Mains supply (to Power Unit)	110/230 VAC
Working voltage	18 VAC
Revolutions per minute	20 - 60 RPM
Power consumption	60 VA

Class II equipment



Type B equipment



Class of protection: II

- No protective (earthed) conductor
- No protective earth terminal



Degree of protection at the applied part: Earth potential

- Not insulated against earthed parts
- Not suitable for direct cardiac application

Continuous operation

Equipment not suitable for use in the presence of flammable anaesthetic mixture with air or with oxygen or nitrous oxide.

For safety and for warranty assurance reasons, any modifications and repair of the **APT-5** or its components must be performed exclusively by authorized personnel and exclusively with original spare parts.

The **APT-5** and its accessories have been designed and manufactured in accordance with the specification of the following:

DIRECTIVE: Medical devices 93/42 EEC (Annex V)



Manufactured by:



Tzora Active Systems Ltd.
15 Avraham Giron st.
Industrial zone Yahud
56217 Israel POB 217
Tel. +972-3-5398999
Fax. +972-3-6320879

Distributed in USA by: Lifestyle Sports 10247 Lakeside Blvd Ext, Dunkirk, NY 14048
1-800-666-9198 716-679-7716 Fax 716-679-7718 wploetz@netsync.net APT-trainers.com